

## **2.8 Tuggerah Lakes and Lake Macquarie Community Survey**

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### **SUMMARY**

In 2015 Council engaged Micromex to facilitate a community survey looking at the knowledge, attitudes, behaviours and perceptions of residents towards Tuggerah Lakes and lower Lake Macquarie (Wyong Shire catchments). To complement the phone survey Council published the same survey questions to the community online through the Community Consultation Hub. A total of 605 people were interviewed via phone and 132 responses via the website.

The report provides a brief overview of the outcomes along with recommendations for the future.

### **RECOMMENDATION**

- 1 That the Committee receive the report on the Tuggerah Lakes and Lake Macquarie Community Survey**
- 2 That the Committee note that staff will further investigate incorporating the survey results in the program planning for 2016/17.**

### **BACKGROUND**

Through the implementation of the Tuggerah Lakes Estuary Management Plan an estuary communication and education strategy was developed, *Educating and Communicating for Change, 2008*. This strategy looks at the implementation of programs based on increasing knowledge (a short-term measure of education outcomes) and increase attitude, planned behaviour change and perceptions (a longer term measure of education outcomes). One of the actions within the strategy was the development of a community survey to provide:  
Measure current levels of knowledge as well as attitudes, behaviours and perceptions of residents towards Tuggerah Lakes and the surrounding catchments  
Assess longitudinal data changes in research outcomes (looking at attitudes, behaviours and perceptions of the community)  
Guide the continued development of an awareness and educational campaign for residents of Wyong Shire

Surveys have been undertaken in 2009, 2013 and 2015.

Conducted by phone, the surveys have covered an array of questions on the estuary and catchment areas. Previous surveys (2009 and 2013) have not included questions about the Lake Macquarie catchment within Wyong Shire.

## **CURRENT STATUS**

In 2013 and 2015 the same survey was also placed on Council's Consultation Hub. This was included to provide residents with another method to complete the survey and utilise existing audiences through Councils engagement processes. From 2015 questions about the or including the Lake Macquarie catchment have been included and directed by suburb. This was undertaken to ensure residents in the areas within the Lake Macquarie catchment were included in the survey.

In 2015 the telephone survey was held in conjunction with an online survey and effectively gathered information regarding the behavioural change of the community after education and engagement programs have been implemented.

### **Data collection period**

The data collection period for the telephone interviewing (CATI) was conducted during the period 12<sup>th</sup> -23<sup>rd</sup> November 2015 by Micromex. The data collection for the online survey hosted on Council's Consultation Hub was conducted during the 17<sup>th</sup> November to the 16<sup>th</sup> December 2015.

### **Sample**

605 residents were interviewed by phone and 132 responses received via the online hub.

From the phone survey; 515 of the 605 respondents were selected by means of a computer based random selection process using the electronic White Pages. In addition to this, 90 respondents were 'number harvested' via face-to-face intercept at a number of areas around the Wyong LGA, i.e. Wyong Train Station, Tuggerah Train Station, and Lake Haven Shopping Centre. A sample size of 605 provides a maximum sampling error of plus or minus 4.0% at 95% confidence. This means that if the survey was replicated with a new universe of N=605 residents, that 19 times out of 20 we would expect to see the same results, i.e. +/-4.0%. A quota of 106 interviews were obtained from five Wyong LGA suburbs that fall within the Lake Macquarie catchment area: Chain Valley Bay, Crangan Bay, Gwandalan, Mannering Park, and Summerland Point.

The results of the two surveys (phone and online) have been reported separately below.

Please note the Micromex phone survey has been analysed using Q Professional, the online survey results have not therefore, the results of the phone survey provide acutely accurate results through analysis that identifies people's perceptions and like perceptions through regression analysis whereas the online survey provides general results

## **SURVEY RESULTS**

Both the phone and online survey have provided interesting results in regards to the community's knowledge, awareness, behaviours and perceptions of the estuaries. The full reports are included in the Attachments. Below are the key findings from both surveys.

### Key Findings of Phone Survey

Two key themes emerged from the 2015 Survey:

**Awareness** levels have remained relatively flat or have declined since 2013 – for instance:

- Unaided recall of Tuggerah and Budgewoi Lakes has dropped significantly – and recall of Lake Munmorah is also down marginally. In contrast, unaided recall of Lake Macquarie is up, even after the consultant excluded those suburbs in the Lake Macquarie catchment where the booster interviews were conducted (interviews that were undertaken by suburb to include Lake Macquarie catchment suburbs specifically).
- Claimed awareness of particular lake facts (such as the role of seagrasses and saltmarshes )is down significantly on 2013
- Awareness of the ‘Love Our Living Lakes’ campaign has remained unchanged since 2013 – given this research was conducted during/directly after the Wyong Lakes Festival and the ‘Love Our Living Lakes’ campaign was a program partner of the festival, Council and the consultant would have expected an increase in awareness
- Possibly reflecting the awareness scores, claimed knowledge about the health and long-term sustainability of the lakes was also down marginally (although not significantly)

Discussions with Council have revealed that between June 2013 and July 2015, Council communications and education about the lakes were less than they had been prior to the 2013 due to no education programs running during this time. This supports the above research findings.

However, encouragingly, **attitudes and a sense of community responsibility** for the lakes have increased:

- There has been a noticeable increase in residents expressing some degree of concern about the issues affecting the lakes. Furthermore, the survey results suggest that concern is LGA-wide, not just restricted to those living next door to a lake
- There has been a significant increase since 2013 in residents’ thinking that the quality of the lakes has improved over the past 8-10 years:
  - That said, opinions are still polarised on this issue, with a number of residents feeling the lake have gotten worse
- On an unaided question about who residents believe is responsible for the quality of the lakes, there has been a significant increase in mentions of ‘residents and individuals living in the Shire’
- In a similar vein, when asked a more direct question about the effect residents have on the lakes, our respondents provided a significantly higher effect rating

So how do we reconcile lower awareness scores with more favourable attitude/responsibility scores?

- Awareness is arguably more fleeting/dynamic than are values/beliefs/attitudes which may build over time (i.e.: are cumulative , long term changes in people’s attitudes and behaviours).
- Resident interest in/concern for their local lakes may be fuelled in part by external communications about environmental sustainability etc. For instance, given awareness of Lake Macquarie has increased whilst awareness of the three Wyong lakes has decreased, it is possible that there has been more visibility around Lake Macquarie issues in recent times
- Residents reported that ‘personal experience’ was by far the most common way they became aware of facts about the lake—what they see and experience for themselves. 80% of residents had walked along a lake foreshore in the past 12months –up significantly from 73% in 2013 – it is possible that cumulative exposure to the lake system has impacted attitudes and beliefs

### Importance and Satisfaction

A key component of the 2015 survey was the Importance/Satisfaction module:

**Importance** scores for four of the 13 attributes increased significantly in 2015 –

- This is in line with the more favourable attitude/responsibility scores discussed above; that is, residents are placing more importance on certain environmental and sustainability issues:
- Three of the four significant increases were for those attributes with the lowest relative importance scores, which is particularly pleasing

**Satisfaction** scores increased on all 13 attributes – in six cases the increases were significant:

- However, there is still room for improvement, as the Satisfaction scores are generally weak

Based on direct comparison of ‘Importance’ and ‘Satisfaction’ ratings, the key issues/concerns that the community is readily able to articulate are:

- Reducing litter around waterways (85% answered as very important)
- Ensuring nutrients don’t leach into waterways (84% answered as very important)
- Ensuring creeks are clean and healthy (84% answered as very important)
- Ensuring that drainage and stormwater systems are environmentally sensitive (83% answered as very important)
- Ensuring sediment from building sites, etc. does not leach into waterways (81% answered as very important)

Shapley Regression Analysis was used to better identify the underlying drivers of overall quality perceptions that respondents can't necessarily articulate. The key issues shaping the residents' perceptions of the lakes are 'visual' factors (vegetation - 'Maintaining healthy low growing lake foreshore vegetation', 'Maintaining the health of underwater grass or plants in the lake', and 'Maintaining and increasing natural vegetation around the lakes' foreshores'; and Ensuring creeks are clean and healthy). These visual factors have most impact on whether residents believe the lakes have improved or not. They may talk about litter, pollution, leaching, etc. – but it is the state of the vegetation and the cleanliness of the creeks that appear to shape residents' perceptions of the lakes (of course, this may reflect that current management of rubbish is sufficient to make it less of an issue –addressing rubbish/pollution may be a necessary but not sufficient condition)

### Other Opportunities

In terms of communications **channels**:

- Newspapers appear to be the dominant medium for Council to use
- However, given the high level of usage of the lakes/foreshore (particularly walking) and stated reliance on personal observations to learn about the lakes, perhaps Council should consider greater usage of in-situ communications (signs, etc.) to engage with residents.

In terms of communications **content**:

- Only 38% of all residents specifically mentioned that rainwater run-off flows into the local lakes. Other frequent mentions were stormwater drains and local creeks/rivers– but what is not known is whether residents who mentioned these other channels directly associate them with the lakes
- The challenge facing Council in balancing the needs/perceptions of residents is perhaps best illustrated by the fact that 'bad smells' and 'water quality' were both mentioned as reasons why residents felt the lakes had **improved** and had **gotten worse** in recent years
- As previously discussed in this report, the state of the vegetation is a key driver of overall perceptions of the lakes. Interestingly, a quarter of those who felt the lakes had gotten worse over the years reasoned it was because of the 'amount of weeds/seaweeds in and around the lakes'. Further education about the important role of the weeds may be required
- In terms of environmentally damaging behaviours, washing cars on streets/driveways appears to be the main issue.

### Key Findings of Online Survey

The Tuggerah Lakes / Lake Macquarie community survey 2015 was also hosted on Council's Consultation Hub and promoted through eNews, Resident ePanel and Facebook.

132 respondents completed the survey which is significantly more than the 29 people that completed the last online estuary survey in 2013.

Overall, these results are similar to the 2015 telephone survey:

- Concern for the environmental and sustainability issues affecting the lakes has risen
- Awareness has declined from the previous online survey which is consistent with the phone survey results. During the period from 2013 to 2015 little or no estuary communication and education programs were run in Wyong Shire
- More people believe that the lakes have improved over the last 8-10 years
- More people believe that residents and individuals are responsible for the quality of the lake
- People continue to rely on newspapers as their main source of information about the lakes

### **Awareness**

Respondent **awareness** indicated that:

- 100% of respondents able to indicate where their stormwater goes (same as 2013)
- 50-60% of respondents were aware of the importance of seagrasses and saltmarshes (down on 75% in 2013)
- 59% of respondents could indicate the amount of fresh water influence on the estuary (down on 72% in 2013)
- Most people became aware of estuary facts from personal experience and newspaper articles in both surveys
- 52% were aware of the Love our Living Lakes campaign (down on 79% in 2013) – 12% from the showing of the Tuggerah Lakes animation in local cinemas, 21% from articles in the newspaper (down from 62% in 2013)
- 20% of respondents in 2015 had seen the Tuggerah Lakes estuary animated film at the cinema (this was not screened in 2013 and therefore this is a new question to the survey)
- 72% of respondents were aware of Council's extensive program over the last 8 years to improve water quality in Tuggerah Lakes estuary. Most respondents were aware of this from personal experience and/or newspaper articles
- 21% of respondents had participated in estuary educational activities (down from 31% in 2013).
- 65% of respondents are concerned 'a great deal' about environmental and sustainability issues affecting the lakes (up by 10% on the last online survey).

- 42% of respondents believe the quality of the lakes has improved over the last 8-10 years (up from 24% in 2013) while 31% believe the quality of the lakes has worsened over the same period (down from 44% in 2013).
- The majority of respondents believe that residents/individuals (58%)\* and Wyong Shire Council (78%)\* are responsible for improving the quality of Tuggerah Lakes (up from 41% in 2013).

\* Respondents could choose more than one response to this question.

### Importance and Satisfaction

In **importance and satisfaction**, the vast majority of respondents rated all 13 specific environmental and sustainability issues as very important (the same as 2013). In satisfaction, the results were much more mixed with the majority of respondents to each question bar one expressing their satisfaction as '3' or middle of the road whilst in 2013, respondents were more likely to be very dissatisfied or dissatisfied with issues such as stormwater and seagrass management.

### Other Opportunities

- Most people had not read published articles about the estuary but had read newspaper articles (new question in 2015).
- Most people had not been fishing, swimming, boating in the last 12 months but had walked along the foreshore (same as 2013).
- Most respondents had not carried out environmentally damaging behaviours around the lakes but 18% have washed cars on street or driveway (new question in 2015).
- 21% of respondents in 2015 had volunteered with a local community/environment group (new question in 2013).
- The majority of respondents like to find out about environmental activities at Council through advertisements in newspapers, emails, websites, council notices and social media (comparable to 2013 results).

## GOVERNANCE

### Consideration of s.23A guidelines

The Chief Executive of the NSW Office for Local Government has issued guidelines titled "*Council Decision Making during Merger Proposal Periods*" pursuant to s.23A(1) of the *Local Government Act 1993* ("LG Act"). The Council must consider those guidelines when making decisions during the "merger proposal period", which commenced on 6 January 2016 and will conclude on the date on which a proclamation is made to amalgamate the Wyong and Gosford local government areas or the Minister for Local Government determines that he will not proceed with the proposal for that amalgamation: s.23A(3) of the LG Act. Councillors have been provided with a copy of those guidelines and have been given advice concerning those guidelines. The decisions that are proposed as part of this report comply with those guidelines.



## CONCLUSION

Outcomes indicate that levels of knowledge and awareness around estuary issues and ecosystems have decreased. This short-term knowledge decrease was expected with Council's reduction in estuary communication and education programs in 2014/2015. While longitudinal results (attitude, behaviours and perceptions) illustrated an increase, this is a positive result. This could be due to a combination of behaviour based themes in the previous long-term communication campaign, education programs implemented under the EMP and the inclusion of communications to the community about the operational works programs undertaken over the past three years.

One of the best outcomes for education programs is the long-term increase in people's attitudes and a measured increase in behaviour change. Evidence indicates that long-term change in behaviour is the favourable result programs should aim to achieve. Therefore the continuation of the estuary education program with consistent messaging and themes is important to increase the community's knowledge and continue to improve attitudes, behaviours and perceptions, understand the ecological processes within the estuaries, continue to value the estuaries and catchments and take ownership where they can by displaying positive behaviours.. Incorporated with the operational programs of the Estuary Management Plan, the communities understanding of why projects are undertaken and what the short and long-term benefits are to the estuary would ensure the results documented would continue in a positive way.

Outcomes of the report will now be used by staff to mould the direction of the communication plan and determine the target audiences and themes for the education programs for 2016/17. The opportunities documented indicate the need for education to be delivered for the users of the lake foreshore shared pathways. Options such as information and/or interpretative signage will be investigated with the continuation of estuary education tours in and around the estuaries. The community indicated that the preferred method of receiving information is newspapers however an increase in both email and social media was illustrated. All three of these communication channels are being used in the current estuary communication and education program for 2015/16 and will be reviewed for use in 2016/17.

## ATTACHMENTS

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|---|--------------------------------|-----------|
| 1 | Consultation Hub Online Survey | D12213931 |
| 2 | Micromex Phone Survey          | D12214026 |